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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re application of: Lescot, et al

Attorney Docket No.: SNTCP001X2C1

Application No.: 09/905,090

Examiner: To Be Assigned

Filed: July 12, 2001

Group: 2818

Title: APPARATUS FOR MODELING IC  
SUBSTRATE NOISE UTILIZING  
IMPROVED DOPING PROFILE ACCESS  
KEY



**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail to: Commissioner for Patents, Washington, DC 20231 on August 21, 2001.

Signed:

*Deborah Neill*

Deborah Neill

**INFORMATION DISCLOSURE STATEMENT  
37 CFR §§1.56 AND 1.97(b)**

Commissioner for Patents  
Washington, DC 20231

Dear Sir:

The references listed in the attached PTO Form 1449 may be material to examination of the above-identified patent application. Applicants submit the list of these references in compliance with their duty of disclosure pursuant to 37 CFR §§1.56 and 1.97. The Examiner is requested to make these references of official record in this application. The above-identified application is a continuation of prior application U.S. Patent Application No. 09/536,206. This prior application is being relied upon for an earlier filing date under 35 U.S.C. § 120. Because the listed references were either cited by the PTO, or submitted to the PTO in the prior application, under 37 CFR § 1.98(d) Applicants submit that copies need not be provided.

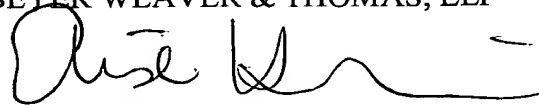
This Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that these references indeed constitute prior art.

This Information Disclosure Statement is: (i) filed within three (3) months of the filing date of the above-referenced application, (ii) believed to be filed before the mailing date of a first

Office Action on the merits, or (iii) believed to be filed before the mailing of a first Office Action after the filing of a Request for Continued Examination under §1.114. Accordingly, it is believed that no fees are due in connection with the filing of this Information Disclosure Statement. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 500388 (Order No. SNTCP001X2C1).

Respectfully submitted,

BEYER WEAVER & THOMAS, LLP

A handwritten signature in black ink, appearing to read 'Elise R. Heilbrunn', with a long horizontal flourish extending to the right.

Elise R. Heilbrunn

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<b>Form 1449 (Modified)</b>  <b>Information Disclosure Statement By Applicant</b>  (Use Several Sheets if Necessary)	Atty Docket No. <b>SNTCP001X2C1</b>	Application No.: <b>To Be Assigned</b>
	Applicant: <b>Lescot, et al.</b> Filing Date <b>July 12, 2001</b>	Group <b>To Be Assigned</b>

#### U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	A1	5,238,860	08/24/93	Sawada, et al.			01/03/92
	A2	6,103,561	08/15/00	Seshadri, et al.			03/19/99

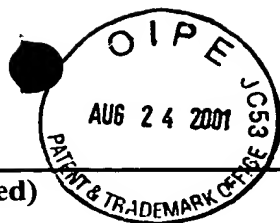
#### Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	A3							

#### Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	A4	Xavier Aragones, "A Contribution to the Study of Substrate Coupling in Mixed-Signal Integrated Circuits", Universitat Politecnica de Catalunya, October 1997
	A5	Francois Clement, "Computer Aided Analysis of Parasitic Substrate Coupling in Mixed Digital-Analog Cmos Integrated Circuits", Ecole Polytechnique Federale de Lausanne, 1996
	A6	Tallis Blalack, "Switching Noise in Mixed-Signal Integrated Circuits", Department of Electrical Engineering, Stanford University, December 1997
	A7	Tallis Blalack, Jack Lau, François J.R. Clément, and Bruce A. Wooley, "Experimental Results and Modeling of Noise Coupling in a Lightly Doped Substrate", 0-7803-3393-4, © 1996 IEEE, IEDM 96-623, pages 23.3.1 – 23.3.4.
	A8	Alan Pun et al., "Experimental Results and Simulation of Substrate Noise Coupling via Planar Spiral Inductor in RF ICs", Dept. of IEEE, The Hong Kong University of Science and Technology, Swiss Federal Institute of Technology and Hewlett-Packard Laboratory, 1997
	A9	Martin Pfost et al., "Modeling Substrate Effects in the Design of High-Speed Si-Bipolar IC's", IEEE Journal of Solid-State Circuits, Vol. 31, No. 10, October 1996
Examiner		Date Considered

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

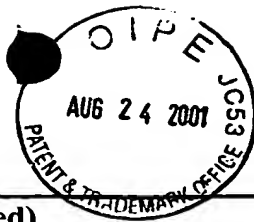


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**Other Documents**

Examine r Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	B1	Sujoy Mitra et al., "A Methodology for Rapid Estimation of Substrate-Coupled Switching Noise", IEEE 1995 Custom Integrated Circuits Conference, 1995
	B2	Nishath K. Verghese et al., "Fast Parasitic Extraction for Substrate Coupling in Mixed-Signal ICs", IEEE 1995 Custom Integrated Circuits Conference, 1995
	B3	R. Gharpurey et al., "Modeling and Analysis of Substrate Coupling in Integrated Circuits", IEEE 1995 Custom Integrated Circuits Conference, 1995
	B4	Balsha R. Stanisic et al., "Addressing Substrate Coupling in Mixed-Mode IC's: Simulation and Power Distribution Synthesis, IEEE Journal of Solid-State Circuits, Vol. 29, No. 3, March 1994
	B5	Kuntal Joardar, "A Simple Approach to Modeling Cross-Talk in Integrated Circuits", IEEE Journal of Solid-State Circuits, Vol. 29, No. 10, October 1994
	B6	Thomas A. Johnson et al., "Chip Substrate Resistance Modeling Technique for Integrated Circuit Design", IEEE Transactions on Computer-Aided Design, Vol. CAD-3, No. 2, April 1984
	B7	T.A. Johnson et al., "Chip Substrate Resistance Modeling Technique for Integrated Circuit Design", IEEE, 1983
	B8	Ivan L. Wemple et al., "Mixed-Signal Switching Noise Analysis Using Voronoi-Tessellated Substrate Macromodels", 32 <sup>nd</sup> Design Automation Conference, 1995
	B9	R. Singh et al., "A Practical Approach to Modeling Substrate Coupling in Realistically-Large Mixed-Signal Designs", Department of Electrical and Electronic Engineering, University of Newcastle-upon-Tyne
	B10	Drago Strle, "Crosstalk in Mixed Signal Integrated Circuits: Problems and Solutions", University of Ljubljana
	B11	Talliss Blalack et al., "The Effects of Switching Noise on an Oversampling A/D Converter", 1995 IEEE International Solid-State Circuits Conference, 1995
	B12	David K. Su et al., "Experimental Results and Modeling Techniques for Substrate Noise in Mixed-Signal Integrated Circuits", IEEE Journal of Solid-State Circuits, Vol. 28, No. 4, April 1993
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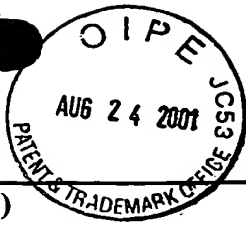


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**Other Documents**

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	C1	Ranjit Gharpurey et al., "Modeling and Analysis of Substrate Coupling in Integrated Circuits", IEEE Journal of Solid-State Circuits, Vol. 31, No. 3, March 1996
	C2	Nishath K. Verghese et al., "Verification Techniques for Substrate Coupling and Their Application to Mixed-Signal IC Design", IEEE Journal of Solid-State Circuits, Vol. 31, No. 3, March 1996
	C3	T. Smedes et al., "Layout Extraction of 3D Models for Interconnect and Substrate Parasitics", ESSDERC'95 25 <sup>th</sup> European Solid State Device Research Conference, The Hague, September 1995
	C4	J.P. Raskin et al., "Coupling Effects in High-Resistivity Simox Substrates for VHF and Microwave Applications", Proceedings 1995 IEEE International SOI Conference, October 1995
	C5	R.B. Merrill et al., "Effect of Substrate Material on Crosstalk in Mixed Analog/Digital Integrated Circuits", IEEE, 1994
	C6	A. Viviani et al., "Extended Study of Crosstalk in SOI-SIMOX Substrates", IEEE Universite Catholique de Louvain, 1995
	C7	King H. Kwan et al., "Simulation and Analysis of Substrate Coupling in Realistically-Large Mixed-A/D Circuits", IEEE Symposium on VLSI circuits Digest of Technical Papers, 1996
	C8	Jean-Pierre Raskin et al., "Substrate Crosstalk Reduction Using SOI Technology", IEEE Transactions on Electron Devices, Vol. 44, No. 12, December 1997
	C9	Nishath K. Verghese et al., "Computer-Aided Design Considerations for Mixed-Signal Coupling in RF Integrated Circuits", IEEE Journal of Solid-State Circuits, Vol. 33, No. 3, March 1998
	C10	Ranjit Gharpurey et al., "Transform Domain Techniques for Efficient Extraction of Substrate Parasitics", IEEE DSPSR&D Center, Texas Instruments Inc., 1997
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**Other Documents**

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	D1	W. Liu et al., "R.F. MOSFET Modeling Accounting for Distributed Substrate and Channel Resistances with Emphasis on the BSIM3v3 SPICE Model", IEEE, 1997
	D2	Francois J.R. Clement, IC SUBSTRATE NOISE MODELING WITH IMPROVED SURFACE GRIDGING TECHNIQUE, U.S. Patent Application No. 09/495,078, filed January 31, 2000, 57 pages.
	D3	Francois J.R. Clement, IC SUBSTRATE NOISE MODELING, U.S. Patent Application No. 09/262,735, filed March 4, 1999, 54 pages.
	D4	Jean-Michel Richer, IC SUBSTRATE NOISE MODELING INCLUDING EXTRACTED CAPACITANCE FOR IMPROVED ACCURACY, U.S. Patent Application No. 09/536,256, filed March 27, 2000, 89 pages.
Examiner		Date Considered

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